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## Range Extension of *Berghia amakusana* (Baba) to the East Pacific

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ON 1 DECEMBER 1963 I collected a nudibranch of the genus *Berghia* in a tidepool one mile north of Puertecitos in the Gulf of California, Baja California, Mexico. It measured 20 mm in length and was colored as follows: body was yellowish brown; the cerata were yellowish brown with yellowish blotches; near the tips of the cerata there was a light bluish ring and distally a ring of yellowish color; the tips of the cerata were whitish. In the center of the head, between the oral tentacles and rhinophores there was a dark spot surrounded by a ring of yellowish color. The oral tentacles were yellowish brown covered with yellowish blotches. The radula formula was  $22 \times 0 \cdot 1 \cdot 0$ .

A color slide of this animal was submitted to Doctor Kikutarô Baba who identified it as *Berghia amakusana* BABA, 1937). He wrote "The various colours displayed



Figure 1

*Berghia amakusana* (BABA, 1937)

in your animal are just like those observable on our specimens -- no local differentiation of colours could be recognized." This species has been recorded from Sagami Bay and Amakusa, Japan. This report is the first record of the genus *Berghia* from the East Pacific. The figure (Figure 1) was drawn from a color transparency of the animal from Puertecitos.

MARCUS (1958, pp. 68-69) suggests that the part of the genus *Baeolidia* including the three forms of BABA should be transferred to *Berghia*, based on anatomical characteristics.

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## METHODS &amp; TECHNIQUES

## A Technique for Observing Ctenidial and Mantle Currents in Limpets

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IN THE STUDY of the functional morphology of limpets, the water movements within their mantle cavities are often of significance. The following is a method by which the ctenidial and mantle currents can be observed.

Ctenidial currents can best be studied while the limpet is in an inverted position. The shell apex should be lodged against a small piece of clay and pressed to the bottom of a glass dish filled with sea water. When the limpet tries to right itself (Figure 1), it usually exposes its ctenidia. The ctenidial currents can be easily determined by pipetting a suspension of carmine in sea water into its mantle cavity and tracing the particles of carmine using a dissecting microscope. Some workers prefer to place a glass microscope slide against the limpet's foot and permit the gastropod to hang inverted, using the slide as support. It has been my experience that in using the latter method the limpet's foot generally obscures the view of the ctenidia.